

DETAILED ACTION

Claim Objections

1. Claim 37 is objected to because of the following informalities: "each consecutive measurement point" in lines 7-8 should be --each consecutive position measurement point--. Appropriate correction is required.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 37, 38, 40-49, and 51-60 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

4. Claims 37 and 49 have been amended to recite that the position measurement data is defined by a GPS position measurement, with heart rate measurement, time stamp, and altitude measurements being included in the measurement, and that the comparison is on a position by position comparison means that the non-position measurements are compared at the same GPS position along a route (see 112 2nd rejection below). The disclosure fails to provide support for such a feature.

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 37, 38, 40-49, and 51-60 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

7. As to claims 37 and 49, it is unclear how a GPS position measurement "includes" an HR measurement, a time stamp, and an altitude measurement. Furthermore, it is unclear what the "position by position" comparison consists of the various variables implies. For interpretation purposes, it is understood to mean a comparison in the various variables at the same GPS position, as determined by the previous and current/ongoing measured data. However, it is still unclear why an "altitude" would be compared for the same GPS position, since the measurements are disclosed to be measured on the same route (to be able to track progress) and therefore should have identical altitudes. Similarly, it is now unclear what indicating how much the user has "fallen below, on a position by position basis" implies, as the data points are compared at the same GPS position (in which case a comparison would show no difference, and also applicable to altitude measurements). If it is based on heart rate measurements, it is unclear what it means to be "fallen below", whether one has to have a higher or lower HR compared to previous measurements to be considered "fallen below". Really the only realistic determination of "fallen below" can be considered relative to time (applicant's disclosure also seems to indicate that it can only be measured in time - [0055]). However, it is further noted that the comparison of the time stamp is meaningless, as it does not show elapsed time from the beginning of a previously determined position relative to that data point. As such, the examiner is interpreting the

Art Unit: 3735

phrase "fallen below" to be a comparison of elapsed time. Lastly it is unclear how close the GPS positioning must be to be considered valid for a position by position comparison.

8. Claim 37 recites the limitation "the previously recorded GPS position measurement data" in lines 11-12. There is insufficient antecedent basis for this limitation in the claim. It is understood to mean "the previously recorded measurement data".

9. As to claims 40 and 52, since the comparison is based on the same GPS location, it is unclear how the comparing can comprise the comparison of distance.

Claim Rejections - 35 USC § 103

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. Claims 37, 38, 40, 42-49, 51, and 53-60 rejected under 35 U.S.C. 103(a) as being unpatentable over Lee et al. (US 2005/0288154) in view of Kinnunen et al. (US 2001/0023320) and Root et al. (USP #6,013,007).

12. As to claims 37 and 49, Lee teaches a method and corresponding device for comparing a previously recorded activity to an ongoing activity ([0051], [0052] - tracking performance characteristics to compare current values with previous values) using a measurement device (10) by performing the steps of loading previously recorded measurement data of a virtual friend relating to a previous activity (claims 15 and 16 -

Art Unit: 3735

the “performance profile” of claim 1 being the measurement data of a virtual friend), the data comprising a plurality of consecutive measurement points (Fig. 6 - 220, [0053] - information relating to speed, distance, time for certain intervals or entire session) on a route ([0064] - device allows for storing locations to be able to store a starting/finishing locations and allow the user to navigate back to the same location to train along the same route, [0007] - talks of the difficulty of recalling exact route in prior arts, which this invention solves), each set including a time stamp ([0016], [0065]), GPS position ([0014]), and altitude measurements ([0046]), comparing, during an ongoing activity, the measurement data with current measurements (250, [0055] - comparing goal information with performance information), providing a user with a feedback in response (260, [0055] - communicating performance info versus goal info) by continuously measuring the ongoing activity (230 - monitoring performance) and providing feedback at the same time (260, [0058] - instructing user to modify/maintain performance) and indicating how much the user has fallen behind with the previously recorded measurement ([0055] - communicating performance information versus goal information). Lee further teaches input means ([0013] - user interface or memory element data interface), data processing unit ([0013] - processor) and feedback means (80 - audio component, 58 - display).

Lee fails to teach that the recorded data set includes a heart rate measurement. However, it is noted that Lee teaches a personal training device in assisting a user in reaching exercise performance goals. In addition, Lee also teaches the monitoring of calorie expenditure based on speed and body weight, while optionally considering

Art Unit: 3735

distance and change in elevation ([0051]). It is well known that such metabolic parameters can be more accurately calculated by accounting for heart rate parameters. Kinnunen teaches a device and method for utilizing heart rate to calculate an assessment of a person's energy consumption during exercise as well as the person's physical performance parameters (Abs; [0013]). As such, it would have been obvious to one of ordinary skill in the art to modify Lee with Kinnunen to monitor heart rate measurements to more accurately model the user performance.

The above combination does not teach that the comparisons are made at a position by position comparison wherein the GPS position of the previous and ongoing activity is largely the same. However, Root teaches GPS based personal athletic performance monitor feedback wherein the GPS measurements are made continuously (col. 7 lines 41-50) along with other information such as the date and time each position was acquired, and comparing performances in a variety of ways, including between different individuals and even virtual competitions (i.e. a historical data). As such, it would be obvious to one of ordinary skill in the art to modify the above combination with Root so that the measurement data could be based on the GPS position to enabling a position by position comparison in other parameters collected or determined on the basis of the collected parameters.

13. As to claim 38, Lee teaches the data as the user's own previous measurement data or someone else's (claims 15 and 16).

14. As to claims 40 and 51, Lee teaches comparing corresponding measurement points ([0070] - in an example, Lee shows how a user training for a triathlon would set

Art Unit: 3735

different intervals for three categories - swimming, bicycling, and running - so that the comparison could be done in these interval goals).

15. As to claims 42-44 and 53-55, Lee teaches a predetermined limit for providing user with feedback and providing feedback only when the limit is exceeded or gone under ([0058] - audio messages such as "you are fifty feet behind schedule" which can inherently only be provided when the user has crossed the limit of fifty feet).

16. As to claims 45 and 56, Lee teaches feedback via sound ([0058] - audio).

17. As to claims 46 and 57, Lee teaches feedback via display ([0058] - progress bars 150).

18. As to claims 47 and 58, Lee teaches that the display is integrated to the measurement device (Fig. 1 - 50).

19. As to claims 48 and 59, Lee teaches the display is an external device connected to the measurement device (Fig. 1 - 50 - displays are inherently external to allow for viewing by the user)

20. As to claim 60, Lee teaches that the device is hand-held ([0049]).

21. Claims 41 and 52 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lee et al. (US 2005/0288154), Kinnunen et al. (US 2001/0023320), and Root et al. (USP #6,013,007), and further over Kaufman (US 2003/0171189).

22. As to claims 41 and 52, Lee teaches the comparison of elapsed time, speed, and distance ([0045]). Lee does not teach the comparison of heart rate. Kaufman, in an exercise monitoring device wherein performances are monitored in real time and

Art Unit: 3735

compared to goals/benchmarks and feedback given to motivate the user ([0002]) teaches that heart rate is monitored to motivate the user to keep the rate within a certain target range or to avoid a dangerous condition ([0068]). As such, it would have been obvious to modify the above combination with Kaufman to monitor heart rate in addition to other exercise parameters to monitor progress in additional parameters.

Response to Arguments

23. Applicant's arguments filed 12/13/11 have been fully considered but they are not persuasive.

24. Applicant has cited various parts of the disclosure as support for the claim amendments made. None of the cited portions disclose that a position by position comparison is made. Paragraph 45 simply states an ability to compare current and previous performance. Paragraph 52 states the various parameters that are measured. Paragraph 53 states the loaded and ongoing activity is directly comparable. This however, is not specific to the exact same GPS position, as it could simply indicate that the measurements are taken along the same route, and thereby "comparable". This conclusion is supported by paragraph 54. Paragraph 55 states that the speed value "at the same point" (emphasis added by the applicant). However, this "point" is never disclosed as being specific to the GPS position, and could be a point in another variable, such as elapsed time (e.g. distance covered in a period of time).

25. Applicant's arguments with respect to claims 37, 38, 40-49, and 51-60 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

26. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to CHRISTIAN JANG whose telephone number is (571)270-3820. The examiner can normally be reached on Mon-Friday (9-5).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Charles Marmor can be reached on 571-272-4730. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 3735

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CJ
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Examiner, Art Unit 3735
2/9/12

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